

**INTERIM LAND ACQUISITION PRIORITY SYSTEM
U.S. FISH AND WILDLIFE SERVICE**

FISHERIES AND AQUATIC RESOURCES COMPONENT

Project Name: _____ **Date:** ______

USFWS Ecosystem: _____ **Region:** _____

USGS Eight-Digit Hydrologic Cataloging Unit: _____ **State:** _____

BACKGROUND

The following criteria will be used to quantify the fisheries and aquatic resource values of the project. The numbers below the entries on the Data Input Form are the values to be assigned. The Fisheries and Aquatic Resources Component may score a cumulative maximum of 200 points. The 200 point limit also exists for the other LAPS Components (e.g., Endangered and Threatened Species, Bird Conservation, and the Ecosystem Conservation Component). The criteria were developed to provide a quantitative assessment of the Wetland and Aquatic Resources Component. This component will improve opportunities to effectively conserve and restore fisheries and aquatic resources through future Service land acquisition activities. Your responses regarding “the project” should be based on the entire area within the approved acquisition boundary.

The criteria include wetland types and losses, aquatic species population information, and habitat condition. The criteria for the Fisheries and Aquatic Resources Component are based in part on the roles and responsibilities of the U.S. Fish and Wildlife Service, including the six priorities for the Fisheries Resource Program, and the interests of the Emergency Wetlands Protection Act.

The six priorities of the Fisheries Resource Program are:

- C Recovery of listed or candidate aquatic species;
- C Restoration of interjurisdictional fisheries and aquatic species;
- C Management of interjurisdictional fisheries;
- C Fulfillment of mitigation obligations;
- C Restoration of depleted aquatic populations to preclude listing;
- C Provision of fish and wildlife management assistance to tribes and Service lands.

Section 304 of the Emergency Wetlands Resources Act of 1986 (Public Law 99-645) states “The Secretary is authorized to purchase wetlands or interests in wetlands, which are not acquired under the authority of the Migratory Bird Conservation Act of 1929, consistent with the wetlands priority conservation established under section 301.”

Section 301 (c) of the act requires that the Secretary consider:

- ! The estimated proportion remaining of the respective types of wetlands which existed at the time of European settlement;
- ! The estimated current rate of loss and the threat of future losses of the respective types of wetlands;
- ! The contributions of the respective types of wetlands to --
 - (a) wildlife, including endangered and threatened species, migratory birds, and resident species;
 - (b) commercial and sport fisheries;
 - (c) surface and ground water quality and quantity, and flood control
 - (d) outdoor recreation; and
 - (e) other areas or concerns the Secretary considers appropriate.

The Fisheries and Aquatic Resources Component is designed to evaluate and rank projects based on the ability of the project to contribute toward Service objectives. Targeted aquatic resources are primarily those whose performance and contribution have been reduced to suboptimal levels by a wide variety of factors, associated mainly with habitat degradation, fragmentation, and excessive use. Emphasis is placed on the indigenous or native species within their original ranges and habitats. The underlying premise for acquisition is that habitat is prerequisite and limiting to species management. The Emergency Wetlands Resources Act directs the Secretary of the Interior to purchase, in order to protect, wetlands experiencing a significant loss or threat of loss. Therefore, such losses must be evaluated when considering priorities for land acquisition. Three general wetland groups, (Decreasing, Stable, and Increasing) based on percent of loss since the 1950's, are used in LAPS and are derived from the Service's March, 1984 publication, “Wetlands of the United States: Current Status and Recent Trends.”

COMPONENT CRITERIA

Factor A - Aquatic Resources Population Information (Maximum of 40 pts)

1. Species is a: Other _____ ; State Species of Concern _____ ;
Service Trust Species _____ ; Or None of the above _____

These criteria are designed to credit a project for the status of a single (*one*) particular aquatic species (finfish, mollusks, crustaceans, and all other animals other than mammals and birds) with reference to its jurisdictional management status. A Service Trust species is one for which the Service has management responsibility for mitigation, restoration, and recovery of threatened and endangered species. These are identified for some fish species in Attachment I at the end of this section; the list is not all-inclusive and will be updated as data becomes available. The tables for other aquatic species from various taxonomic groups are in development; they will be added when available. State species of concern are the next level of importance. These are aquatic species that the states have identified as requiring some level of protection and can be obtained from the appropriate State Heritage/Planning Office list or off the Internet at www.heritage.tnc.org/nhp/usmap/html. Lastly, the “Other” criterion refer to aquatic species that are an integral part of the project’s biodiversity, but not identified in the other two categories.

2. Status of the species population: Management _____ ; Restoration _____ ;
Recovery (ESA) _____ or Depleted _____.

Select the most appropriate activity that describes the project with respect to the species. “Management” is a project where the acquisition will protect the habitat or self-sustaining population. “Restoration” is a project where the primary activity is to increase a population to a self-sustaining level but where the species in question is not endangered. “Recovery” is a project that supports a species identified as endangered or a candidate in the Endangered Species Act. “Depleted” describes a species that is imperiled: the population is in decline and continued unabated decline will result in listing under the ESA.

3. Population Trend: Unknown _____ ; Increasing _____ ; Stable _____ ; or Decreasing: _____.

The trend in the population is needed to help establish the priority rating. The trend is the long-term indicator of a species population condition and is based upon data or the best available data for the species. The trend data for fish are found in Attachment II located at the end of this section; the list is not all-inclusive and will be updated as data becomes available. If the status is unknown, check “Unknown.” Other sources of information can be used; however, a reference must be provided on the Data Input Form.

Factor B - Affected Species Information (Maximum 20 pts.)

1. Number of aquatic Service Trust species affected by project: _____ .

This response will include the total of all aquatic Service Trust species affected by the project. A project that affects \$5 species receives maximum points for this question. These species may include finfish, mollusks, crustaceans, and all other animals life other than mammals and birds.

2. Species richness or aquatic faunal diversity (number of aquatic species) within the project: _____ .

Total species richness is based on the best available data of the number of animal species (including macroinvertebrates) present within the project. This information may be found through links on the website <http://www.epa.gov/surf2/> . Points are assigned by species richness and a maximum 10 points may be reached for species numbers over 258.

Factor C - Habitat (Maximum 40 pts.)

1. The aquatic area of the project has been identified as critical habitat and/or essential habitat for a species: No ____ or Yes _____ .

If Yes, identify plan title and date: _____

Critical and/or essential habitat is defined as those waters and substrate necessary to species (finfish, mollusks, crustaceans, and all other animals life other than mammals and birds) for spawning, breeding, feeding, or growth to maturity. If the land acquisition project is for the recovery of an aquatic endangered or candidate species, a depleted/imperiled species, or a state species of concern that has been identified in a bonafide written management plan, i.e., coordinated with Federal, state and/or private partners, then mark yes, and identify the plan. If the aquatic area of the project has not been identified or it is unknown as to whether or not it is, then mark no.

2. Project area fully or partially conserves/protects free-flowing rivers or river reaches longer than 125 miles and includes those identified in Attachment III (or river reaches greater than 125 miles): No ____ or Yes _____ .

This criterion is based on large-scale data for the United States that has been compiled and evaluated. The response may be obtained from Attachment III located at the end of this section or other source. The project boundary must include or intersect the 125 mile reach of a river or a river greater than 125 miles in order to answer “yes.”

3. Project area is within or effects a listed small watershed area that is either critical (327 watersheds) or a hot spot (87 watersheds) for imperiled and vulnerable freshwater fish and mussel species: Critical watersheds _____ or Hot Spot Watersheds _____.

This criterion is based on large-scale data for the United States that has been compiled and evaluated by The Nature Conservancy. The response is obtained from Attachments IV and V located at the end of this section.

Factor D - Wetland Types (Decreasing/Stable/Increasing) (Maximum 90 points)

Factor D identifies the percentage of the project area in each of the seven decreasing wetland types. Wetland types are defined in Classification of Wetlands and Deepwater Habitats of the United States, FWS/OBS-79/31, December, 1979. In the National Wetlands Priority Conservation Plan some, but not all, wetland types are listed as Decreasing, Stable, or Increasing. Projects protecting or restoring wetlands of decreasing or stable types will receive points.

Estimate the percentage of the project area that is made up of the following wetland types:

Decreasing Wetland Types

- _____ % Palustrine Emergent
- _____ % Palustrine Forested
- _____ % Palustrine Scrub-Shrub
- _____ % Estuarine Intertidal Emergent
- _____ % Estuarine Intertidal Forested
- _____ % Estuarine Intertidal Scrub-Shrub
- _____ % Marine Intertidal
- + _____ % *Former wetlands that would be restored to wetland of Decreasing Type*
- = _____ % **Subtotal Decreasing** ÷ 100 = _____ (use in equation below)

Stable Wetland Types

- _____ % Estuarine Intertidal Non-Vegetated
- _____ % Estuarine Subtidal
- + _____ % Lacustrine
- = _____ % **Subtotal Stable** ÷ 100 = _____ (use in equation below)

$$\text{TOTAL FACTOR D SCORE} = \{[(\text{Decreasing wetlands}) * 2] + (\text{Stable wetlands})\} * 45$$

$$= \{[(\text{_____}) * 2] + (\text{_____})\} * 45 = \text{_____} \text{ (round up)}$$

EXAMPLE of Factor D calculation:

Decreasing Wetland Types

 20 % Palustrine Emergent

 05 % Palustrine Forested

 05 % Palustrine Scrub-Shrub

 % Estuarine Intertidal Emergent

 % Estuarine Intertidal Forested

 % Estuarine Intertidal Scrub-Shrub

 % Marine Intertidal

+ 05 % Former wetland that would be restored to wetland of Decreasing Type [from above]

= 35 % Subtotal Decreasing

Stable Wetland Types

 % Estuarine Intertidal Non-Vegetated

 % Estuarine Subtidal

+ 05 % Lacustrine

= 05 % Subtotal Stable

$$\begin{aligned} \text{TOTAL FACTOR D SCORE} &= \{[(\text{Decreasing wetlands}) * 2] + (\text{Stable wetlands})\} * 45 \\ &= \{[(.35) * 2] + (.05)\} * 45 = 33.75 = \underline{34} \end{aligned}$$

Factor E - Wetland Losses (%) (Maximum 10 points)

Factor E addresses Group 1, above. It is broken down on a State by State basis into five levels based upon the percentage of wetland loss. Using the following table (Source: Dahl, T.E. 1990, Wetlands Losses in the United States 1780's to 1980's), select the state in which the project is located divide the number in column 2 by 10, and round off to the nearest integer . If the project has no wetlands within its boundary, then you receive 0 points, regardless of what the state decline is.

State	% of Wetlands Lost
AK	00.1
AL	50.0
AZ	36.0
AR	72.0
CA	91.0
CO	50.0
CT	74.0
DE	54.0
FL	46.0
GA	23.0
HI	12.0
ID	56.0
IL	85.0
IN	87.0
IA	89.0
KS	48.0
KY	81.0
LA	46.0
ME	20.0
MD	73.0
MA	28.0
MI	50.0

State	% of Wetlands Lost
MS	59.0
MO	87.0
MT	27.0
NE	35.0
NV	52.0
NH	9.0
NJ	39.0
NM	33.0
NY	60.0
NC	49.0
ND	49.0
OH	90.0
OK	67.0
OR	38.0
PA	56.0
RI	37.0
SC	27.0
SD	35.0
TN	59.0
TX	52.0
UT	30.0
VT	35.0
VA	42.0

State	% of Wetlands Lost
WA	31.0
WV	24.0
WI	46.0
WY	38.0

INTERIM LAND ACQUISITION PRIORITY SYSTEM
Fisheries and Aquatic Resources Component
Data Input Form

Project Name: _____ **Region:** _____
USFWS Ecosystem: _____ **Date:** ____________
USGS Eight-Digit Hydrologic Cataloging Unit: _____ **State:** _____

Factor A - Aquatic Resources Population Information (40 pts)

Targeted Species (*one only*): _____

1. Species is a:

Other: **G** [3] (Specify: _____) State Species of Concern: **G** [5]

Aquatic Service Trust Species : **G** [15] None: **G** [0]

2. Status of the species population:

Management: **G** [4] Recovery (ESA): **G** [6] Restoration: **G** [8] Depleted: **G** [10]

3. Population Trend:

Unknown: **G** [0] Increasing: **G** [5] Stable: **G** [10] Decreasing: **G** [15]

Source Reference: _____

TOTAL FACTOR A SCORE: _____

Factor B - Affected Species Information (20 pts)

1. Number of aquatic Federal Trust species affected by project (circle # and corresponding points):

Species #:	0	1	2	3	4	>5
	-----	-----	-----	-----	-----	-----
Points:	0	6	7	8	9	10

2. Species richness or aquatic faunal diversity (number of aquatic species) within the project

(circle # and corresponding points):

Species #:	0	1-3	4-13	14-29	30-51	52-80	81-115	116-156	157-204	205-258	>258
Points:	0	1	2	3	4	5	6	7	8	9	10

TOTAL FACTOR B SCORE: _____

Factor C - Habitat (40 pts)

1. The aquatic area of the project has been identified in a plan as critical and/or essential habitat for a species.

No: **G** [0] Yes: **G** [10] Plan Title and Date: _____

2. Project area fully or partially conserves/protects a river or river reach longer than 125 miles:

No: **G** [0] Yes: **G** [10]

3. Project area is within or effects a listed small watershed area that is either critical (327 watersheds) or a hot spot (87 watersheds) for imperiled and vulnerable freshwater fish and mussel species:

Critical watersheds: **G** [10] Hot Spot Watersheds: **G** [20]

TOTAL FACTOR C SCORE: _____

Factor D - Wetland Type (90 pts)

Decreasing:

- _____ % Palustrine emergent
- _____ % Palustrine forested
- _____ % Palustrine scrub-shrub
- _____ % Estuarine intertidal emergent
- _____ % Estuarine intertidal forested
- _____ % Estuarine intertidal scrub-shrub
- _____ % Marine intertidal
- + _____ % Former wetland that would be restored to wetland of Decreasing Type [from above]
- = _____ **Subtotal % Decreasing Wetlands**

Stable:

_____ % Estuarine Intertidal Non-Vegetated
_____ % Estuarine Subtidal
+ _____ % Lacustrine
= _____ % **Subtotal Stable**

TOTAL FACTOR D SCORE = {[**(Decreasing wetlands)** * 2] + (**Stable wetlands**)} * 45
= {[(_____) * 2] + (_____) } * 45 = _____

Factor E - % of Wetland Loss Expressed by Acreage by State (10 pts maximum)

Using the table, divide the appropriate state's wetland loss number in column 2 by 10, and round off to the nearest integer:

State: _____ Wetland Loss: _____ ÷ 10 = _____

TOTAL FACTOR E SCORE: Round to nearest integer for # points: _____

Component Total Possible Points=200

Total Points: Factor A + B + C + D + E = _____

ATTACHMENT I - FEDERAL TRUST SPECIES

Alaskan Anadromous Stocks

Coho Salmon
Chinook Salmon
Sockeye Salmon
Chum Salmon
Pink Salmon
Steelhead

Pacific Anadromous Stocks

Coho Salmon
Chinook Salmon (Fall)
Chinook Salmon (Spring)
Chinook Salmon (Summer)
Chinook Salmon (Winter)
Sockeye Salmon
Chum Salmon
Pink Salmon
White Sturgeon
Green Sturgeon
Steelhead

Great Lakes

Atlantic Salmon
Walleye
Yellow Perch
Lake Trout
Coaster Brooktrout
Lake Sturgeon
Lake Herring
Lake Sturgeon
Lake Whitefish
Lake Herring
American Eel
Deepwater Sculpin

Atlantic Salmon
Striped Bass
Blueback Herring
Shortnose Sturgeon
Alewife
American Eel
Rainbow Smelt
American Shad
Hickory Shad
Atlantic Sturgeon

Gulf Anadromous Species

Striped Bass
American Shad
Atlantic Sturgeon
Alabama Shad
Skipjack Herring
Paddlefish
Gulf Menhaden
Red Drum
Spotted Sea Trout
Atlantic Croaker
Southern Flounder
Pallid Sturgeon
Gulf Sturgeon
Striped Mullet

Atlantic Anadromous Species

**Migratory Intercoastal/Estuarine -
Inland Interjurisdictional**

Lahontan Cutthroat
Cui-ui
Weakfish
Red Drum
Paddlefish
Blue Fish
Summer Flounder
Spotted Seatrout
Spot
Atlantic Croaker
Atlantic Menhaden
Shovelnose Sturgeon
Pallid Sturgeon
Blue Sucker
Sicklefin Chub
Sturgeon Chub
All cutthroat subspecies
Bull Trout
Arctic Grayling
Colorado River Endangered Fish
Lake Sturgeon
White Sturgeon
Razorback Sucker
Green Sturgeon
Shortnose Sturgeon
Desert Pupfish

**Migratory/Interjurisdictional/Diadromous/
Nearshore, Estuarine and Inland/
Anchialine Species for the Pacific Islands**

**See Species list at end of Trends Attachment
II**

ATTACHMENT II - AQUATIC RESOURCE TRENDS
ALASKAN ANADROMOUS STOCKS

STOCK	SPECIES	TREND
ALA	Chinook Salmon	STABLE
ALA	Chum Salmon	STABLE
ALA	Coho Salmon	STABLE
ALA	Pink Salmon	STABLE
ALA	Sockeye Salmon	STABLE
ALA	Steelhead	STABLE

ATLANTIC ANADROMOUS SPECIES

STOCK	SPECIES	TREND
ATL	Alewife	DECREASING
ATL	American Eel	DECREASING
ATL	American Shad	DECREASING
ATL	Atlantic Salmon	DECREASING
ATL	Atlantic Sturgeon	DECREASING
ATL	Blueback Herring	DECREASING
ATL	Hickory Shad	INCREASING
ATL	Rainbow Smelt	DECREASING
ATL	Shortnose Sturgeon	INCREASING
ATL	Striped Bass	INCREASING
GIL	Top Minnow	INCREASING

GULF ANADROMOUS SPECIES

STOCK	SPECIES	TREND
GLF	Alabama Shad	DECREASING
GLF	American Shad	INCREASING
GLF	Atlantic Croaker	INCREASING
GLF	Atlantic Sturgeon	INCREASING
GLF	Gulf Menhaden	INCREASING
GLF	Gulf Sturgeon	STABLE
GLF	Paddlefish	INCREASING
GLF	Pallid Sturgeon	INCREASING
GLF	Red Drum	INCREASING
GLF	Skipjack Herring	INCREASING
GLF	Southern Flounder	INCREASING
GLF	Spotted Sea Trout	INCREASING
GLF	Striped Bass	INCREASING
GLF	Striped Mullet	DECREASING

GREAT LAKES

STOCK	SPECIES	TREND
GRL	Lake Trout	INCREASING
GRL	Walleye	INCREASING
GRL	Yellow Perch	INCREASING
GRL	Chinook Salmon	STABLE

MIGRATORY INTERCOASTAL/ESTUARINE - INLAND

STOCK	SPECIES	TREND
MIG	All Cutthroat subspecies	DECREASING
MIG	Arctic Grayling	INCREASING

MIG	Atlantic Croaker	INCREASING
MIG	Atlantic Menhaden	INCREASING
MIG	Blue Fish	INCREASING
MIG	Blue Sucker	DECREASING
MIG	Bull Trout	INCREASING
MIG	Coaster Brook Trout	DECREASING
MIG	Colorado River Endang. Fish	INCREASING
MIG	Crystal Darter	DECREASING
MIG	Cui-ui	DECREASING
MIG	Flathead Chub	DECREASING
MIG	Green Sturgeon	INCREASING
MIG	Lahontan Cutthroat	INCREASING
MIG	Lake Sturgeon	DECREASING
MIG	Paddlefish	DECREASING
MIG	Pallid Sturgeon	DECREASING
MIG	Razorback Sucker	INCREASING
MIG	Red Drum	INCREASING
MIG	Shortnose Sturgeon	INCREASING
MIG	Shovelnose Sturgeon	DECREASING

MIGRATORY INTERCOASTAL/ESTUARINE - INLAND

MIG	Sicklefin Chub	INCREASING
MIG	Spot	INCREASING
MIG	Spotted Seatrout	INCREASING
MIG	Sturgeon Chub	DECREASING
MIG	Summer Flounder	INCREASING
MIG	Weakfish	INCREASING
MIG	White Sturgeon	INCREASING

INLAND

Desert Pupfish

DECREASING

PACIFIC ANADROMOUS STOCKS

STOCK	SPECIES	TREND
PAC	Chinook Salmon (Fall)	DECREASING
PAC	Chinook Salmon (Spring)	DECREASING
PAC	Chinook Salmon (Summer)	DECREASING
PAC	Chinook Salmon (Winter)	DECREASING
PAC	Chum Salmon	DECREASING
PAC	Coho Salmon	DECREASING
PAC	Delta Smelt	DECREASING
PAC	Green Sturgeon	DECREASING
PAC	Pink Salmon	DECREASING
PAC	Sockeye Salmon	DECREASING
PAC	Steelhead upriver-brights	DECREASING
PAC	White Sturgeon	DECREASING

PACIFIC ANADROMOUS STOCKS

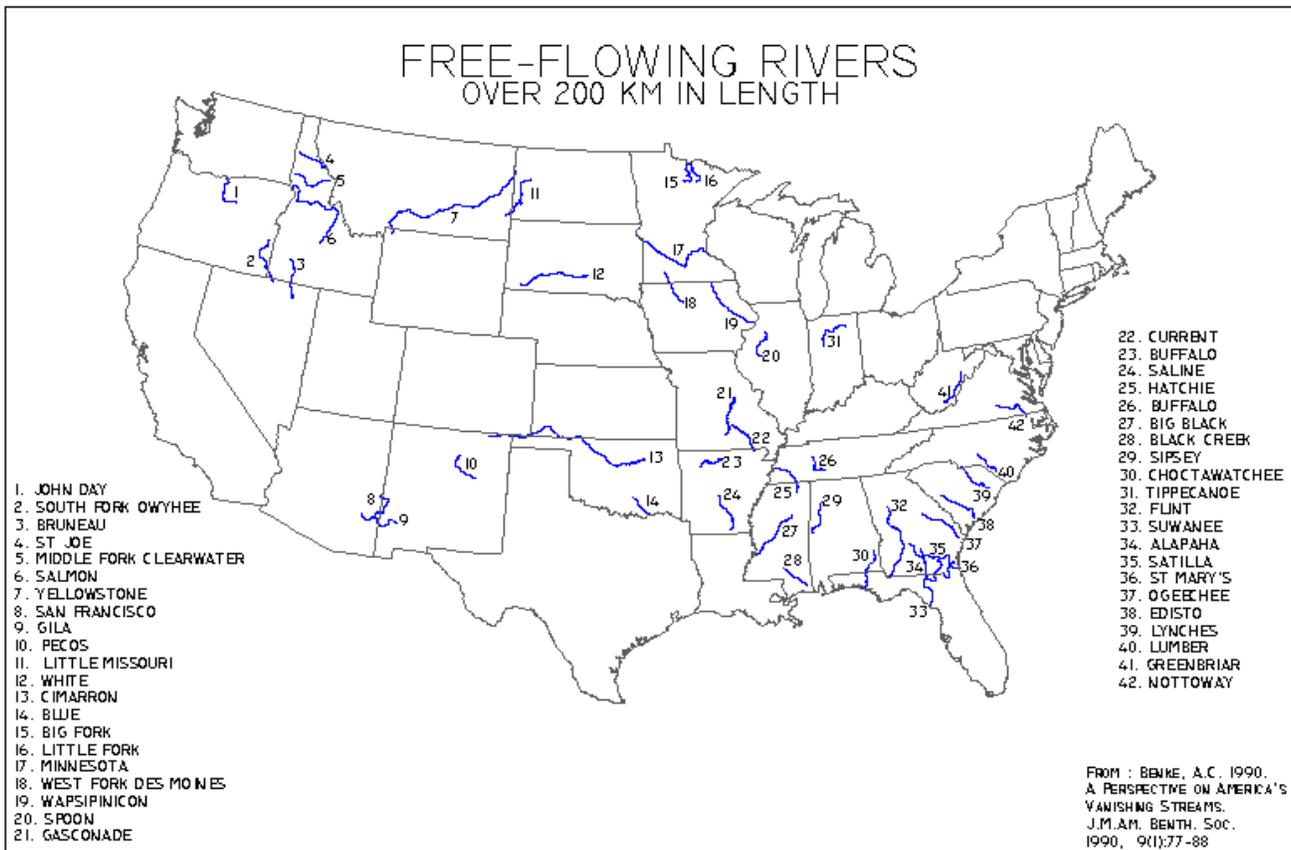
STOCK	SPECIES	TREND
YAQUI	Chub	INCREASING
YAQUI	Top Minnow	INCREASING

AQUATIC RESOURCES OF PACIFIC ISLANDS ECOREGION

Common Name	Scientific Name	Trend
‘O’opu nakea (Goby)	<i>Awaous guamensis</i>	Decreasing
‘O’opu naniha (Goby)	<i>Stenogobius genivitattus</i>	Unknown

‘O’opu alamo’o (Goby)	<i>Lentipes concolor</i>	Decreasing
‘O’opu nopili (Goby)	<i>Sicyopterus stimpsoni</i>	Decreasing
‘O’opu Akupa (Sleeper)	<i>Eleotris sandwichensis</i>	Unknown
Hihiwai	<i>Neretina</i>	Unknown
Hapawai (snail)	<i>Theodoxus vespertinus</i>	Unknown
Snail	<i>Theodoxus cariosus</i>	Unknown
Snail	<i>Erinna newcombi</i>	Unknown
‘Opae kala’ole (shrimp)	<i>Atyoida bisulcata</i>	Unknown
‘Opae’oeha’a (prawn)	<i>Macrobrachium grandimanus</i>	Unknown
‘Ama’ama (Striped Mullet)	<i>Mugil cephalus</i>	Decreasing
‘Ama (Milkfish)	-	Decreasing
‘O’io (Bonefish)	<i>Albula vulpes</i>	Decreasing
Papi’o (Juvenile Jack)	<i>Caranx spp.</i>	Decreasing
Black-lipped pearl oyster	-	Decreasing
Giant Clam	<i>Tridacna maxima</i>	Decreasing
Giant Clam	<i>Tridacna perlatus</i>	Decreasing
‘Opae ‘ula	<i>Halocaridina rubra</i>	Unknown

ATTACHMENT III



ATTACHMENT IV

U.S. Watershed Hot Spots With 10 or More At-Risk Freshwater Fish and Mussel Species

Taken from: Master et al. 1998

Small Watershed Area (subbasin, or USGS Hydrologic Cataloging Unit)	States	Number of Fish and Mussel Species at Risk	Number of Fish and Mussel Species with U.S. Endangered Species Act Status
Upper Clinch	VA, TN	48	21
Upper Duck	TN	33	6
Powell	VA, TN	30	13
Upper Green	KY	29	7
Upper Elk	TN	27	9
South Fork Cumberland	TN, KY	22	7
Wheeler Lake	AL, TN	22	9
Conasauga	GA, TN	21	10
Tippecanoe	IN	21	6
Upper Ouachita	AR	20	3
Holston	TN	20	12
Spring (Upper White Basin)	AR, MO	20	1
Lower Wabash	IN, IL	20	8
Nolichucky	TN, NC	19	6
South Fork Holston	VA, TN	19	4
Lower Little Tennessee	TN, NC	19	7
Watts Bar Lake	TN	19	8

Small Watershed Area (subbasin, or USGS Hydrologic Cataloging Unit)	States	Number of Fish and Mussel Species at Risk	Number of Fish and Mussel Species with U.S. Endangered Species Act Status
Upper Cumberland-Lake Cumberland	KY, TN	18	5
North Fork Holston	VA, TN	18	4
Lower Little	AR, OK	17	3
Middle Wabash-Deer	IN	17	7
Lower Tennessee-Beech	TN, MS	16	8
Little Missouri	AR	16	1
Lower East Fork White	IN	16	5
Pickwick Lake	AL, TN	15	4
Lower Duck	TN	15	6
Lower Cumberland-Old Hickory Lake	TN	15	10
Strawberry	AR	15	0
Buttahatchee	AL, MS	15	6
Barren	KY, TN	15	3
Hiwassee	TN, NC, GA	15	2
Upper Tombigbee	MS, AL	14	7
Ouachita Headwaters	AR	14	1
Buffalo	TN	14	4
Upper Little	OK	14	2
Lower Clinch	TN	14	11
Middle Tennessee-Chickamauga	TN, GA	14	6

Small Watershed Area (subbasin, or USGS Hydrologic Cataloging Unit)	States	Number of Fish and Mussel Species at Risk	Number of Fish and Mussel Species with U.S. Endangered Species Act Status
Current	MO, AR	14	1
Middle Wabash-Little Vermilion	IN, IL	14	6
Middle Wabash-Busseron	IN, IL	14	6
Caney	TN	13	5
Altamaha	GA	13	2
Sipsey	AL	13	6
Upper Saline	AR	13	1
Spring (Neosho Basin)	MO, KS, OK	13	3
Middle White	AR	13	1
Upper White	IN	13	3
Waccamaw	NC, SC	12	2
Cahaba	AL	12	4
Apalachicola	FL, GA	12	4
Upper Flint	GA	12	2
Yellow	FL, AL	12	0
Rockcastle	KY	12	3
Beaver Reservoir	AR, MO	12	1
French	PA, NY	12	2
Etowah	GA	11	3
Collins	TN	11	4
Lower Ocmulgee	GA	11	2

Small Watershed Area (subbasin, or USGS Hydrologic Cataloging Unit)	States	Number of Fish and Mussel Species at Risk	Number of Fish and Mussel Species with U.S. Endangered Species Act Status
Escambia	AL, FL	11	2
Middle Chattahoochee-Walter F. George Reservoir	GA, AL	11	1
Pea	AL, FL	11	2
Lower Choctawhatchee	FL, AL	11	2
Lower Conecuh	AL	11	1
Upper Tar	NC	11	2
Emory	TN	11	4
Kinchafoonee-Muckalee	GA	11	3
Upper Neuse	NC	11	1
Kiamichi	OK	11	1
Upper Cumberland-Cordell Hull	TN	11	3
Lower French Broad	TN	11	4
Upper Black	MO, AR	11	1
Elk	WV	11	3
Lost	CA, OR	10	2
Little Red	AR	10	1
Lower Tallapoosa	AL	10	2
Upper Little Tennessee	NC	10	3
Sepulga	AL	10	0
Middle Alabama	AL	10	3
Small Watershed Area (subbasin, or USGS Hydrologic Cataloging Unit)	States	Number of Fish and Mussel Species at Risk	Number of Fish and Mussel Species with U.S. Endangered Species Act Status

Luxapallila	AL, MS	10	3
Red	TN, KY	10	1
Buffalo	AR	10	0
Illinois	OK, AR	10	2
Lower Ohio	KY, IL	10	3
Licking	KY	10	2
Muskingum	OH	10	2
Ohio Brush-Whiteoak	OH, KY	10	1
Little Muskingum Middle Island	WV, OH	10	2

ATTACHMENT V

Taken from: Master et al, 1998.

Critical Watersheds to Conserve At-Risk Fish and Mussel Species

Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Wheeler Lake	AL, TN	Cumberlands & Southern Ridge & Valley	23
Buttahatchee	AL, MS	Upper East Gulf Coastal Plain	15
Sipsey	AL	Upper East Gulf Coastal Plain	15
Pickwick Lake	AL, TN	Interior Low Plateau	15
Cahaba	AL	Upper East Gulf Coastal Plain	14
Lower Tallapoosa	AL	Upper East Gulf Coastal Plain	12
Pea	AL, FL	East Gulf Coastal Plain	11
Lower Conecuh	AL, FL	East Gulf Coastal Plain	11
Escambia	AL, FL	East Gulf Coastal Plain	11
Middle Coosa	AL	Cumberlands & Southern Ridge & Valley	11
Sepulga	AL	East Gulf Coastal Plain	10
Middle Alabama	AL	Upper East Gulf Coastal Plain	10
Luxapallila	AL, MS	Upper East Gulf Coastal Plain	10
Sipsey Fork	AL	Cumberlands & Southern Ridge & Valley	9
Upper Conecuh	AL	East Gulf Coastal Plain	8
Lower Coosa	AL	Cumberlands & Southern Ridge & Valley	8
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species

Mobile-Tensaw	AL	East Gulf Coastal Plain	8
Upper Choctawhatchee	AL	East Gulf Coastal Plain	7
Lower Alabama	AL	East Gulf Coastal Plain	7
Middle Tombigbee-Lubbub	AL, MS	Upper East Gulf Coastal Plain	7
Locust	AL	Cumberlands & Southern Ridge & Valley	7
Upper Black Warrior	AL	Cumberlands & Southern Ridge & Valley	7
Patsaliga	AL	East Gulf Coastal Plain	6
Middle Tallapoosa	AL	Piedmont	6
Upper Alabama	AL	Upper East Gulf Coastal Plain	6
Lower Tombigbee	AL	East Gulf Coastal Plain	5
Upper Ouachita	AR	Upper West Gulf Coastal Plain	20
Little Missouri	AR	Upper West Gulf Coastal Plain	16
Strawberry	AR	Ozarks	16
Ouachita Headwaters	AR	Ouachita Mountains	14
Upper Saline	AR	Upper West Gulf Coastal Plain	13
Buffalo	AR	Ozarks	10
Little Red	AR	Ozarks	10
Bayou Bartholomew	AR, LA	Mississippi River Alluvial Plain	7
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Lower Ouachita Smackover	AR	Upper West Gulf Coastal Plain	6
Cache	AR	Mississippi River Alluvial Plain	3
Little Colorado Headwaters	AZ, NM	Arizona New Mexico Mountains	4

Chevelon Canyon	AZ	Arizona New Mexico Mountains	4
Lower San Pedro	AZ	Sonora Desert	4
San Bernardino Valley	AZ, NM	Apache Highlands	4
Grand Canyon	AZ	Colorado Plateau	3
Upper Verde	AZ	Apache Highlands	3
Upper Santa Cruz	AZ	Apache Highlands	2
Whitewater Draw	AZ	Apache Highlands	2
Rio Sonoyta	AZ	Sonora Desert	1
Rio De La Concepcion	AZ	Apache Highlands	1
Lower Pit	CA	West Cascades and Coastal Forests	6
Upper Pit	CA	Modoc plateau and East Cascades	5
Suisun Bay	CA	Great Central Valley	5
San Pablo Bay	CA	California Central Coast	5
San Francisco Bay	CA	California Central Coast	5
Lower Sacramento	CA	Great Central Valley	4
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Mad-Redwood	CA	California North Coast	2
Lower Eel	CA	California North Coast	2
Russian	CA	California North Coast	2
Upper Cache	CA	California North Coast	2
Mill-Big Chico	CA	Great Central Valley	2
Upper King	CA	Sierra Nevada	2
San Gabriel	CA	California South Coast	2

Santa Ana	CA	California South Coast	2
Santa Margarita	CA	California South Coast	2
Crowley Lake	CA, NV	Great Basin	2
Owens Lake	CA	Mohave Desert	2
Death Valley-Lower Amargosa	CA, NV	Mohave Desert	2
Upper Cow-Battle	CA	West Cascades and Coastal Forests	1
Upper Kern	CA	Sierra Nevada	1
Upper Tuolumne	CA	Sierra Nevada	1
Colorado Headwaters-Plateau	CO, UT	Colorado Rocky Mountains	5
Lower Yampa	CO	Utah-Wyoming Rocky Mountains	5
Lower White	CO, UT	Wyoming Basins	4
Lower Gunnison	CO	Colorado Rocky Mountains	3
Apalachicola	FL, GA	East Gulf Coastal Plain	13
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Lower Choctawhatchee	FL, AL	East Gulf Coastal Plain	11
Yellow	FL, AL	East Gulf Coastal Plain	10
Lower Ochlockonee	FL, GA	East Gulf Coastal Plain	9
Chipola	FL, AL	East Gulf Coastal Plain	9
Lower Suwannee	FL	East Gulf Coastal Plain	8
Santa Fe	FL	Florida Peninsula	7
Lower St. Johns	FL	Florida Peninsula	6
St. Andrew-St. Joseph Bays	FL	East Gulf Coastal Plain	4
Oklawaha	FL	Florida Peninsula	3

Choctawhatchee Bay	FL	East Gulf Coastal Plain	3
Everglades	FL	Tropical Florida	2
Kissimmee	FL	Florida Peninsula	1
Lower Ocmulgee	GA	South Atlantic Coastal Plain	13
Altamaha	GA	South Atlantic Coastal Plain	13
Middle Chattahoochee- Walter F. George Reservoir	GA, AL	East Gulf Coastal Plain	13
Upper Flint	GA	Piedmont	12
Kinchafoonee-Muckalee	GA	East Gulf Coastal Plain	12
Etowah	GA	Piedmont	12
Ohoopce	GA	South Atlantic Coastal Plain	10
Lower Chattahoochee	GA, AL	East Gulf Coastal Plain	9
Upper Coosa	GA, AL	Cumberlands & Southern Ridge & Valley	9
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At- Risk Fish and Mussel Species
Lower Oconee	GA	South Atlantic Coastal Plain	8
Little Ocmulgee	GA	South Atlantic Coastal Plain	8
Ichawaynochaway	GA	East Gulf Coastal Plain	8
Upper Tallapoosa	GA, AL	Piedmont	8
Lower Flint	GA	East Gulf Coastal Plain	7
Coosawattee	GA	Southern Blue Ridge	7
Upper Suwannee	GA, FL	South Atlantic Coastal Plain	6
Oostanaula	GA	Cumberlands & Southern Ridge & Valley	6
Upper Ocmulgee	GA	Piedmont	4
Upper Ochlockonee	GA	East Gulf Coastal Plain	4

Upper Ogeechee	GA	South Atlantic Coastal Plain	3
Upper Oconee	GA	Piedmont	3
Satilla	GA	South Atlantic Coastal Plain	2
Little Sioux	IA, MN	Northern Tallgrass Prairie	1
Bear Lake	ID, UT	Utah-Wyoming Rocky Mountains	5
Upper Snake-Rock	ID	Columbia Plateau	1
Big Wood	ID	Idaho Batholith	1
Little Wood	ID	Columbia Plateau	1
Middle Wabash-Little Vermilion	IL, IN	North Central Tillplain	14
Vermilion	IL, IN	Central Tallgrass Prairie	9
Embarras	IL	Interior Low Plateau	7
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Kankakee	IL, IN	Central Tallgrass Prairie	7
Tippecanoe	IN	North Central Tillplain	21
Lower East Fork White	IN	Interior Low Plateau	16
St. Joseph	IN, OH, MI	North Central Tillplain	8
Driftwood	IN	North Central Tillplain	7
Blue-Sinking	IN, KY	Interior Low Plateau	7
Crooked	KS, OK	Central Shortgrass Prairie	3
Upper Cimarron-Bluff	KS, OK	Central Mixed-Grass Prairie	3
Middle Neosho	KS	Osage Plains/Flint Hills Prairie	3
Upper Green	KY	Interior Low Plateau	29
South Fork Cumberland	KY, TN	Cumberlands & Southern Ridge & Valley	22

Upper Cumberland Lake Cumberland	KY, TN	Interior Low Plateau	18
Barren	KY, TN	Interior Low Plateau	15
Rockcastle	KY	Cumberlands & Southern Ridge & Valley	12
Licking	KY	Interior Low	10
Lower Tennessee	KY	Upper East Gulf Coastal Plain	9
Upper Cumberland	KY, IN	Cumberlands & Southern Ridge Valley	4
Bayou De Chien-Mayfield	KY	Upper East Gulf Coastal Plain	2
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At- Risk Fish and Mussel Species
Bayou Teche	LA	Mississippi River Alluvial Plain	8
Upper Calcasieu	LA	Piney Woods	6
Lower Red-Lake latt	LA	Piney Woods	3
Mermentau Headwaters	LA	Gulf Coast Prairies and Marshes	2
Cacapon-Town	MD, PA, WV, VA	Central Appalachian Forest	2
Mattawamkeag	ME	Northern Appalachian/Boreal Forest	1
Lake Superior	MI, WI, MN	Great Lakes	2
Dead-Kelsey	MI	Great Lakes	1
Lake Huron	MI	Great Lakes	1
Spring	MO, AR	Ozarks	19
Lower Little	MO, OK	Upper West Gulf Coastal Plain	17
Current	MO, AR	Ozarks	14

Spring	MO, KS, OK	Ozarks	13
Upper Black	MO, AR	Ozarks	11
Meramec	MO	Ozarks	8
Lower Gasconade	MO	Ozarks	6
Sac	MO	Ozarks	5
Niangua	MO	Ozarks	5
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Upper Tombigbee	MS, AL	Upper East Gulf Coastal Plain	15
Pascagoula	MS	East Gulf Coastal Plain	7
Tangipahoa	MS, LA	East Gulf Coastal Plain	7
Lower Chickasawhay	MS, LA	East Gulf Coastal Plain	6
Amite	MS, LA	East Gulf Coastal Plain	6
Bayou Pierre	MS	Upper East Gulf Coastal Plain	3
Little Tallahatchie	MS	Upper East Gulf Coastal Plain	2
Yocona	MS	Upper East Gulf Coastal Plain	1
Fort Peck Reservoir	MT	Northern Great Plains Steppe	3
Prairie Elk-Wolf	MT	Northern Great Plains Steppe	3
Charlie-Little Muddy	MT, ND	Northern Great Plains Steppe	3
Lower Yellowstone	MT	Northern Great Plains Steppe	3
Upper Tar	NC	Piedmont	11
Upper Neuse	NC	Piedmont	11
Waccamaw	NC, SC	Mid-Atlantic Coastal Plain	11
Upper Little Tennessee	NC, GA	Southern Blue Ridge	10
Fishing	NC	Piedmont	8
Lower Yadkin	NC	Piedmont	7

Deep	NC	Piedmont	6
Rocky	NC, SC	Piedmont	6
Lower Cape Fear	NC	Mid-Atlantic Coastal Plain	4
Black	NC	Mid-Atlantic Coastal Plain	4
Lumber	NC, SC	Mid-Atlantic Coastal Plain	4
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Little Pee Dee	NC, SC	Mid-Atlantic Coastal Plain	4
Albemarle	NC	Mid-Atlantic Coastal Plain	2
Lake Sakakawea	ND	Northern Great Plains Steppe	3
Upper Connecticut-Mascoma	NH, VT	Lower New England/Northern Piedmont	2
Lower Delaware	NJ, PA	North Atlantic Coast	2
Upper Pecos Black	NM, TX	Chihuahua Desert	8
Upper Gila	NM	Arizona New Mexico Mountains	7
Upper Gila Mangas	NM, AZ	Apache Highlands	7
San Francisco	NM, AZ	Arizona-N.M. Mts	6
Upper Pecos-Long Arroyo	NM	Chihuahua Desert	5
Mimbres	NM	Chihuahua Desert	3
Rio Hondo	NM	Arizona-N.M. Mts	3
Rio Grande-Santa Fe	NM	Colorado Rocky Mts.	2
Elephant Butte Reservoir	NM	Arizona-NM Mts.	2
Rio Felix	NM	Chihuahua Desert	2
Tularosa Valley	NM, TX	Chihuahua Desert	1
Lower Virgin	NV, UT, AZ	Mohave Desert	5
White	NV	Great Basin	5

Muddy	NV	Great Basin	3
Havasu-Mahave Lakes	NV, AZ, CA	Mohave Desert	3
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Meadow Valley Wash	NV	Great Basin	2
Spring-Step toe Valleys	NV	Great Basin	2
Fish Lake Soda Spring Valleys	NV, CA	Great Basin	2
Upper Amargosa	NV, CA	Great Basin	2
Lower Quinn	NV	Great Basin	1
Massacre Lake	NV	Columbia Plateau	1
Thousand-Virgin	NV, OR	Columbia Plateau	1
Truckee	NV, CA	Columbia Plateau	1
Pyramid-Winnemucca Lakes	NV	Columbia Plateau	1
Long-Ruby Valleys	NV	Great Basin	1
Hot Creek-Railroad Valleys	NV	Great Basin	1
Middle Delaware-Mongaup-Brodhead	NY,PA, NJ	High Allegheny Plateau	2
Lake George	NY,VT	Great Lakes	1
Middle Hudson	NY	Lower NE/Northern Piedmont	2
Hudson-Wappinger	NY	Lower NE/Northern Piedmont	2
Muskingum	OH	Western Allegheny Plateau	10
Upper Scioto	OH	North Central Tillplain	8
Upper Little	OK	Ouachita Mountains	14
Kiamichi	OK	Quachita Mountains	11

Lower Neosho	OK, AR	Ozarks	2
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Lost	OR, CA	Modoc Plateau & East Cascades	10
Upper Klamath Lake	OR	West Cascades & Coastal Forests	9
Sprague	OR	Modoc Plateau & East Cascades	8
Williamson	OR	Modoc Plateau & East Cascades	7
Upper Klamath	OR, CA	Klamath Mountains	7
Upper Grande Ronde	OR	Idaho Batholith	3
Lower Grande Ronde	OR, WA	Idaho Batholith	3
Middle Fork Willamette	OR	West Cascades & Coastal Forests	2
Mckenazie	OR	West Cascades & Coastal Forests	2
South Umpqua	OR	Klamath Mountains	2
Umpqua	OR	West Cascades & Coastal Forests	2
Alvord Lake	OR, NV	Columbia Plateau	2
Warner Lakes	OR, CA, NV	Columbia Plateau	1
Guano	OR, NV	Columbia Plateau	1
Goose Lake	OR, CA	Modoc Plateau and East Cascades	1
French	PA, NY	Western Allegheny Plateau	12

Middle Allegheny-Tionesta	PA	High Allegheny Plateau	8
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Lynches	SC, NC	Mid-Atlantic Coastal Plain	8
Lower Catawba	SC, NC	Piedmont	8
Middle Savannah	SC, GA	South Atlantic Coastal Plain	7
Saluda	SC	Piedmont	5
Broad-St. Helena	SC	South Atlantic Coastal Plain	4
Edisto	SC	Mid-Atlantic Coastal Plain	3
Stevens	SC	Piedmont	2
Upper White	SD, NE	Northern Great Plains Steppe	1
Middle White	SD	Northern Great Plains Steppe	1
Vermillion	SD	Northern Tallgrass Prairie	1
Upper Duck	TN	Interior Low Plateau	32
Upper Elk	TN	Interior Low Plateau	27
Conasauga	TN, GA	Cumberlands & Southern Ridge & Valley	24
Holston	TN	Cumberlands & Southern Ridge & Valley	21
Nolichucky	TN	Southern Blue Ridge	20
Watts Bar Lake	TN	Cumberlands & Southern Ridge & Valley	19
Lower Little Tennessee	TN, NC	Southern Blue Ridge	19
Lower Tennessee-Beech	TN, MS	Upper East Gulf Coastal Plain	17
Lower Duck	TN	Interior Low Plateau	15
Hiwassee	TN, NC, GA	Southern Blue Ridge	14

Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Buffalo	TN	Interior Low Plateau	14
Caney	TN	Interior Low Plateau	13
Collins	TN	Interior Low Plateau	11
Emory	TN	Cumberlands & Southern Ridge & Valley	11
Red	TN, KY	Interior Low Plateau	10
Lower Elk	TN, AL	Interior Low Plateau	9
North Fork Forked Deer	TN	Upper East Gulf Coastal Plain	2
Big Bend	TX	Chihuahuah Desert	7
Lower Devils	TX	Chihuahuah Desert	7
Middle Sabine	TX, LA	Upper West Gulf Coastal Plain	6
San Saba	TX	Edwards Plateau	6
Black Hills-Fresno	TX	Chihuahuah Desert	6
Upper Devils	TX	Edwards Plateau	6
Toledo Bend Reservoir	TX, LA	Upper West Gulf Coastal Plain	5
South Liano	TX	Edwards Plateau	5
Medina	TX	Edwards Plateau	5
Lower Neches	TX	Piney Woods	4
Middle Brazos-Millers	TX	Southern Shortgrass Prairie	4
San Marcos	TX	Crosstimbers & Southern Tallgrass Prairie	4
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species

Upper San Antonio	TX	Crosstimbers & Southern Tallgrass Prairie	4
Reagan-Sanderson	TX	Chihuahuah Desert	4
Lower Pecos-Red Bluff Reservoir	TX, NM	Chihuahuah Desert	4
Middle Colorado-Elm	TX	Southern Shortgrass Prairie	3
Concho	TX	Edwards Plateau	3
Upper Guadalupe	TX	Edwards Plateau	3
Middle Guadalupe	TX	Crosstimbers & Southern Tallgrass Prairie	3
Upper Frio	TX	South Texas Plains	3
Caddo Lake	TX, LA	Upper West Gulf Coastal Plain	2
Middle Neches	TX	Piney Woods	2
Lower Angelina	TX	Piney Woods	2
Middle Brazos-Palo Pinto	TX	Southern Shortgrass Prairie	2
South Laguna Madre	TX	South Texas Plains	2
Toyah	TX	Chihuahuah Desert	2
Independence	TX	Chihuahuah Desert	2
Lower Rio Grande	TX	South Texas Plains	1
Westwater Canyon	UT, CO	Colorado Plateau	5
Upper Colorado-Kane Springs	UT	Colorado Plateau	5
Lower Green-Diamond	UT, CO	Wyoming Basin	5
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Lower Green-Desolation Canyon	UT	Utah High Plateaus	5
Upper Virgin	UT	Colorado Plateau	5

Duchesne	UT	Utah-Wyoming Rocky Mountains	4
Lower Green	UT	Colorado Plateau	4
Utah Lake	UT	Great Basin	2
Lower Sevier	UT	Great Basin	2
Lower Weber	UT	Utah-Wyoming Rocky Mountains	1
Upper Clinch	VA, TN	Cumberlands & Southern Ridge & Valley	50
Powell	VA, TN	Cumberlands & Southern Ridge & Valley	30
South Fork Holston	VA, TN	Central Appalachian Forest	18
North Fork Holston	VA, TN	Central Appalachian Forest	17
Upper Roanoke	VA	Piedmont	9
Nottoway	VA, NC	Piedmont	9
Upper James	VA, WV	Central Appalachian Forest	8
Upper Dan	VA, NC	Piedmont	8
Meherrin	VA, NC	Piedmont	6
Upper New	VA, NC	Southern Blue Ridge	6
Middle James-Buffalo	VA	Piedmont	5
Pamunkey	VA	Chesapeake Bay Lowlands	4
Small Watershed Area <small>(subbasin, or USGS Hydrologic Cataloging Unit)</small>	States	Primary Ecoregion	Number of At-Risk Fish and Mussel Species
Lower Columbia-Sandy	WA, OR	West Cascades and Coastal Forests	3
Willapa Bay	WA	West Cascades and Coastal Forests	3
Colville	WA	Canadian Rocky Mountains	2

Grays Harbor	WA	West Cascades and Coastal Forests	2
North Umpqua	WA	West Cascades and Coastal Forests	2
Upper Skagit	WA	North Cascades	2
Stillaguamish	WA	Puget Trough and Willamette Valley	2
Lower St. Croix	WI, MN	Superior Mixed Forest	9
Copperas-Duck	WI, IL	Central Tallgrass Prairie	9
Lower Chippewa	WI	Prairie-Forest Border	7
Wolf	WI	Superior Mixed Forest	6
Lower Wisconsin	WI	Prairie-Forest Border	5
Upper Chippewa	WI	Superior Mixed Forest	3
Upper Kanawha	WV	Cumberlands & Southern Ridge & Valley	7
Middle New	WV, VA	Central Appalachian Forest	5
Greenbrier	WV	Central Appalachian Forest	5
Cheat	WV, PA, MD	Central Appalachian Forest	2
Tygart Valley	WV	Central Appalachian Forest	1